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Air Force and industry sign high energy laser agreement

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KIRTLAND AIR FORCE BASE, N.M. — Exploring the feasibility of using high-energy lasers on fighter aircraft is the aim of an agreement signed May 31 between the Air Force Research Laboratory and Lockheed Martin of Fort Worth, Texas.

Under a Cooperative Research And Development Agreement, or CRADA, the laboratory's Directed Energy Directorate and Lockheed Martin's Aeronautics Company will pool their resources.

AFRL will contribute its expertise in high-energy lasers, laser beam-control technology and laser vulnerability data. Lockheed Martin will use the Air Force's information and examine the integration and optimum performance of high-energy lasers and beam-control technology on various fighter aircraft such as the F-15, F-16, F-22 and F-35 Joint Strike Fighter. The company will also assess the military value and potential of lasers on tactical platforms and evaluate related aero-optic issues.

Both organizations are expected to benefit from the cooperative effort and information transfer. The directorate will get insight into the Joint Strike Fighter and other Lockheed Martin platforms to better determine how to apply future research to operational systems that benefit the warfighter. Lockheed Martin will get better technical information on high-energy lasers and beam control systems that will help the company design better weapons systems for its aircraft. The overall cooperative effort is expected to advance and further the development of high-energy lasers aboard tactical aircraft.

AFRL's Directed Energy Directorate is building on past accomplishments. Its scientists invented the chemical laser that is being used on the Airborne Laser, a Boeing 747-400 series jumbo jet aircraft, under development, that will use a laser to destroy ballistic missiles shortly after being launched while still in powered flight. The directorate is also providing technical support to the Airborne Laser program. In the early 1980s, the directorate demonstrated that a modified Boeing 707 laser-armed aircraft could destroy targets in the air. **@**